

Ser. No: 10/806,189

March 23, 2007

**IN THE CLAIMS:****Please amend claims 1, 2, and 3 as follows:**

-- 1(currently amended). An order merging system, the system comprising:

- at least two depalletizing stations, each depalletizing station being dedicated to a different respective product unit depalletized thereon;
- for each depalletizing station, at least one pair of first case guides in communication therewith and having at least one pair of curved, twisted and downwardly sloping lanes, ~~the first case guides being downwardly sloped~~ for guiding at least one product case of the respective product unit for the depalletizing station therealong in each of the first case guides;
- for each pair of first case guides, at least one pair of raisable guides connected downstream thereof and in respective communication therewith;
- at least one pair of independent mixing second case guides of a mixing conveyor for receiving mixed product cases thereon to feed the cases away from the at least two depalletizing stations and located downstream therefrom, each said second case guide being in communication with a respective one of said ~~with the~~ raisable guides, the raisable guides being lowered lowerable to allow the product cases of the respective product unit for the depalletizing station from each said ~~from the first case guides guide to selectively merge onto a respective said onto the second case guides guide, each said raisable guide allowing flowing of mixed product cases located onto respective said~~ second case guide thereunder when in a raised position.

2(currently amended). The system, according to claim 1, includes:

- for each depalletizing station, at least one accumulating conveyor system connected thereto, each accumulating conveyor system being dedicated to the respective product unit for the depalletizing station connected thereto, each accumulating conveyor system having including ~~the~~ at least one pair of the first case guides, each of the first case guides

Ser. No: 10/806,189

March 23, 2007

receiving at least one case of the respective product unit for the depalletizing station.

3(currently amended). The system, according to claim 2, includes:  
~~a mixing conveyor for feeding the cases away from the accumulating conveyor system, the mixing conveyor being connected to the accumulating conveyor system and located downstream therefrom, the mixing conveyor including the second case guides, the wherein each said mixing second case guides being~~  
guide is continuous with the with a respective said raisable guide, which is in turn continuous with a respective said first case guides guide.

4(cancelled).

5(cancelled).

6(original). The system, according to claim 3, in which the accumulating conveyor system includes a conveyor end portion and a sloped gravity conveyor, the first case guides running from the conveyor end portion to the mixing conveyor via the sloped gravity conveyor.

7(original). The system, according to claim 6, in which the conveyor end portion and the sloped gravity conveyor each includes a pair of independent product accumulation lanes.

8(original). The system, according to claim 7, in which the conveyor end portion is a hingeable conveyor hingeably connected to the sloped gravity conveyor, the hingeable conveyor being movable laterally relative to the sloped gravity conveyor.

9(original). The system, according to claim 8, in which a flexible joint connects the hingeable conveyor to the sloped gravity conveyor.

10(original). The system, according to claim 9, in which a flip-up bridge is connected to the hingeable conveyor.

Ser. No: 10/806,189

March 23, 2007

11(original). The system, according to claim 10, in which the sloped gravity conveyor includes at least one gravity curve.

12(original). The system, according to claim 11, in which the sloped gravity conveyor includes two gravity curves.

13(original). The system, according to claim 12, in which the sloped gravity conveyor further includes a plurality of speed controllers connected to the parallel product accumulation lanes.

14(original). The system, according to claim 13, in which each of the product accumulation lanes includes a brake/metering mechanism actuatable thereagainst to frictionally engage the accumulation lanes for stopping the product cases located thereon.

15(original). The system, according to claim 14, in which the sloped gravity conveyor further includes the raisable guides, each raisable guide being a movable chute located downstream from the gravity curves.

16(original). The system, according to claim 1, in which each of the second case guides includes a pair of independent mixing lanes.

17(original). The system, according to claim 16, in which a case switch is connected to the mixing lanes.

18(original). The system, according to claim 17, in which a motorized conveyor system is connected to the case switch.

19(original). The system, according to claim 18, in which the motorized conveyor system includes three conveyors.

20(previously presented). The system, according to claim 19, in which three palletizing stations are connected to the three conveyors.

Ser. No: 10/806,189

March 23, 2007

21(previously presented). The system, according to claim 1, in which each said depalletizing station includes a main support frame having a mezzanine level with a lift access opening therein, the lift access opening being sized and shaped to receive therethrough a pallet having thereon the product case.

22(previously presented). The system according to claim 21, in which each said depalletizing station further includes a pallet hold/empty pallet eject mechanism connected to the mezzanine level.

23(previously presented). The system, according to claim 21, in which each said depalletizing station further includes a pallet infeed conveyor having thereon a full pallet of the product case.

24(previously presented). The system, according to claim 21, in which each said depalletizing station further includes a stationary lift to raise the full pallet to the mezzanine level.

25(previously presented). The system, according to claim 1, includes sixteen depalletizer stations.

26(withdrawn). A depalletizing station assembly for use with a conveyor system, the assembly comprising:

- a conveyor end portion hingeably connected to one end of the conveyor system and in communication with a pallet having thereon a product case, the product case being received on the conveyor end portion from the pallet, the conveyor end portion being laterally movable relative to the conveyor system.

27(withdrawn). The assembly, according to claim 26, further includes a main support frame having a mezzanine level, the mezzanine level having a lift access opening therein, the opening being sized and shaped to receive therethrough the pallet.

Ser. No: 10/808,189

March 23, 2007

28(withdrawn). The assembly, according to claim 27, further includes a pallet hold/empty pallet eject mechanism connected to the mezzanine level.

29(withdrawn). The assembly, according to claim 28, further includes a stationary lift to raise the full pallet to the mezzanine level.

30(withdrawn). The assembly, according to claim 29, further includes a pallet infeed conveyor having thereon a full pallet of the product case.

31(withdrawn). The assembly, according to claim 30, further includes a flip-up bridge connected to the end of the conveyor end portion, the flip-up bridge resting on the frame.

32(withdrawn). The assembly, according to claim 31, in which a flexible joint connects the conveyor end portion to the conveyor system.

33(withdrawn). An order handling system, the system including:

- at least two depalletizing stations, each depalletizing station being dedicated to a different product unit;
- at least two accumulating conveyor systems in communication with the depalletizing stations, the accumulating conveyor system including a twisted sloped gravity conveyor having a pair of independent product accumulation lanes for receiving at least one case of the same product thereon;
- a pair of raisable guides connected downstream of the product accumulation lanes and in communication therewith;
- a mixing conveyor disposed between the depalletizing stations for feeding the cases away from the accumulation conveyor systems, the mixing conveyor being connected to the accumulating conveyor systems and located downstream therefrom, the mixing conveyor having at least two independent mixing lanes, the mixing lanes being continuous with the product accumulation lanes, the raisable guides being lowered to allow the product cases from the product accumulation lanes to merge onto the mixing lanes;

Ser. No: 10/806.189

March 23, 2007

- at least two palletizing stations connected to the mixing conveyor.

34(withdrawn). The system, according to claim 33, includes sixteen depalletizing stations.

35(withdrawn). The system, according to claim 33, includes three palletizing stations. —